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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,269	12/18/2001	Masaharu Shioya	01832/LH	4780

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EXAMINER
MARTIN, ANGELA J

ART UNIT	PAPER NUMBER
1745	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,269

Applicant(s)

SHIOYA, MASA HARU

Examiner

Angela J. Martin

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 18-42 and 47-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 43-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/02, 9/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 18-42 and 47-51 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected fuel pack and power generator, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 30, 2004.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 8, 13-17, and 43-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Kelley et al., WO 00/52779.

Rejection of claims 1-3, 8, 13-17 drawn to a power supply system and claims 43-46 drawn to a device.

Kelley teach a power supply system which supplies electric power to an external device comprising a fuel charging portion and a power generation portion which can be attached to and detached from the fuel charging portion and generates the electric power by using the fuel supplied from the fuel charging portion (abstract). It teaches the power supply system can be attached to and detached from the external device without restraint (p. 5, lines 15-21). It also teaches the power supply system is provided with a terminal, which supplies electric power to the external device (p. 6, lines 14-21).

Additionally, it teaches the power generation portion is provided with a fuel cell, which generates electric power (abstract). It teaches the power generation portion has a holding portion, which holds the fuel charging portion (p. 8, lines 6-8). It teaches the fuel charging portion has an exposed portion and can take out the fuel charging portion from the power generation portion by the physical stress applied to the exposed portion (p. 8, lines 6-25). It also teaches the fuel charging portion has an exposed portion and can couple the fuel charging portion with the power generation portion by the physical stress applied to the exposed portion (p. 8, lines 6-25). It teaches the fuel charging portion includes fuel feeding means, by-product receiving means, and wherein the power generation portion includes fuel receiving means and by-product feeding means (p. 8, lines 6-25). It also teaches the fuel charging portion and the power generation portion are coupled with each other, the fuel feeding means is connected with the fuel receiving means, and the by-product feeding means is connected with the by-product receiving means (abstract).

Thus, the claims are anticipated.

4. Claims 1, 8-10, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kudo et al., EP 0959512 A1.

Rejection of claims 1, 8-10, 12 drawn to a power supply system.

Kudo et al., teach a power supply system which supplies electric power to an external device comprising a fuel charging portion and a power generation portion which can be attached to and detached from the fuel charging portion and generates the electric power by using the fuel supplied from the fuel charging portion (abstract). It

teaches the fuel cell is a fuel reforming fuel cell including a fuel reformer, a fuel electrode, and an air electrode (abstract; sect. 0026). It teaches the fuel reformer is provided with a vapor reforming reaction portion (sect. 0027-0028). It teaches the fuel reformer has a heater (sect. 0040).

Thus, the claims are anticipated.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hockaday et al., WO 00/35032, in view of Kazuya et al., JP 08244781 (machine translation).

Rejection of claims 1, 4-7 drawn to a power supply system.

Hockaday et al., teach a power supply system which supplies electric power to an external device comprising a fuel charging portion and a power generation portion which can be attached to and detached from the fuel charging portion and generates the electric power by using the fuel supplied from the fuel charging portion (abstract). It also teaches the fuel charging portion has a disposable portion.

Hockaday et al., do not teach the disposable portion is a degradable portion.

Kazuya et al., teach the disposable portion, which is the fuel charging portion, has a degradable portion formed of a degradable material which can be transformed into one or a plurality of materials constituting soil; which is degradable at least in the natural environment; which can be degraded by contact with soil; which can be degraded by microbes (sect. 0004-0006; sect. 0020).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Kazuya et al., into the teachings of Hockaday et al., because since the fuel charging portion has a disposable portion in Hockaday et al., it would environmentally beneficial if the disposable portion were biodegradable (Kazuya et al.), in order to help prevent pollution of the environment.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al., EP 0959512 A1.

Kudo et al., teach a power supply system as described in claim 9, wherein the reformer has a flow path whose depth and width are not more than 500 μm .

Thus the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because although Kudo et al., do not specifically recite a depth and width of the flow paths in the reformer, "The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir.1990).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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